

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Canceled)
2. (Previously presented) A recombinant nucleic acid, comprising a nucleic acid sequence having at least 98% identity to a nucleic acid sequence selected from the group consisting of the nucleic acid sequences set forth in SEQ ID NOs:1, 3, and 5, wherein said recombinant nucleic acid encodes a MINK3 protein.
3. (Previously presented) A recombinant nucleic acid according to claim 2, wherein said nucleic acid comprises a nucleic acid sequence selected from the group consisting of the nucleic acid sequences set forth in SEQ ID NOs:1, 3, and 5.
- 4-15. (Canceled)
16. (Currently amended) A recombinant nucleic acid, comprising a nucleic acid sequence that encodes a MINK3 protein comprising an amino acid sequence having at least 98% identity to an amino acid selected from the group consisting of the amino acid sequences set forth in SEQ ID NOs:2, and 4, ~~and 6~~.
17. (Previously presented) An expression vector comprising the nucleic acid of claims 2 or 16.
18. (Previously presented) An isolated or cultured host cell comprising the vector of claim 17.
19. (Previously presented) A method of making a MINK3 protein comprising the step of culturing the host cell of claim 18 under conditions suitable for expression of the MINK3 protein.

20. (Previously presented) The method of claim 19, further comprising the step of isolating the MINK3 protein.

21. (Previously presented) The recombinant nucleic acid of claim 2, wherein the nucleic acid sequence has at least 99% identity to a nucleic acid sequence selected from the group consisting of the nucleic acid sequences set forth in SEQ ID NOs:1, 3, and 5.

22. (Currently amended) The recombinant nucleic acid of claim 16, comprising a nucleic acid sequence that encodes a MINK3 protein comprising an amino acid sequence having at least 99% identity to an amino acid selected from the group consisting of the amino acid sequences set forth in SEQ ID NOs:2, and 4, ~~and 6~~.

23. (Currently amended) ~~The A~~ recombinant nucleic acid ~~of claim 16~~, comprising a nucleic acid sequence that encodes a MINK3 protein comprising an amino acid selected from the group consisting of the amino acid sequences set forth in SEQ ID NOs:2, 4, and 6.

24. (Previously presented) The recombinant nucleic acid of claim 16, wherein the MINK3 protein activates a Jun N-terminal kinase (JNK) protein.

25. (Previously presented) The recombinant nucleic acid of claim 16, wherein the MINK3 protein activates an ERK protein.

26. (Previously presented) The recombinant nucleic acid of claim 16, wherein the MINK3 protein binds to a Nck protein.

27. (Previously presented) A recombinant nucleic acid comprising a nucleotide sequence that is complementary to the full length of the nucleic acid sequence of claims 2 or 16.

28. (Previously presented) A recombinant nucleic acid comprising a nucleotide sequence that is complementary to a nucleic acid sequence sharing at least 98% identity to the nucleic acid sequence set forth by nucleotides 2804-3187 in SEQ ID NO:1.